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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/067,685	02/04/2002	Jean Paul Laprade	81819A	6990

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Framingham, MA 01702

EXAMINER

CHANG, VICTOR S

ART UNIT	PAPER NUMBER
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1771

DATE MAILED: 06/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/067,685

Applicant(s)

LAPRADE, JEAN PAUL

Examiner

Victor S. Chang

Art Unit

1771

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,6-9,11,13,16-18,23-26,28,30 and 58 is/are pending in the application.
- 4a) Of the above claim(s) 16-18,23-26,28,30 and 58 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,6-9,11 and 13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Introduction

1. Applicants' amendments and remarks filed on 5/2/2006 have been entered. Claims 1, 6, 13, 16, 23, 30 and 58 have been amended. Claims 5, 12, 14, 22, 29 and 31 are cancelled. Claims 1, 6-9, 11 and 13 are under active consideration. Claims 16-18, 23-26, 28, 30 and 58 are withdrawn.

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Upon careful reconsideration, in view of Applicant's arguments such as "... Patent Office seemingly combined Kingston, Parker et al. and Laprade et al. into a new and distinct entity ..." (Remarks, page 13), Applicant appears to have been confused about the basis of rejections, despite the fact that the Office actions have all along clearly stated that Laprade teaches an improved release layer, and it is obvious Kingston teaches generally the same structural arrangement as the instant invention. In other words, it is obvious to modify Kingston's invention with Laprade's improved release layer. For the purpose for clarification, the Examiner has further elaborated the grounds of rejection in the present Office action. Applicant's arguments are moot.

Rejections Based on Prior Art

4. Claims 1, 6-9, 11 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's admitted prior art (Kingston (US 3616015), Parker et al. (US 4935300) and Laprade

et al. (US 6099944)) in view of McCurry et al. (US 6391415), and evidenced by Makar et al. (US 5891520) and Downs et al. (US 5919834).

In the Background of the Invention of the specification, Applicant has admitted that it is known that typically a heat-transfer label assembly has one or more heat-transfer labels printed on a removable carrier web (specification, page 1, third paragraph). Kingston teaches that a wax release layer can be affixed to the paper carrier web, and an ink design layer is printed on the wax release layer (specification, page 1, bottom paragraph). Parker teaches that the paper carrier web can be overcoated with a release layer of thermoplastic polyethylene to replace or obviate the need for a wax release layer (specification, page 3, top paragraph). Laprade teaches an improvement over Parker by adding a skim coat of carnauba wax overcoated onto the polyethylene release layer of the carrier web to improve the release of the transfer label (specification, page 4, top paragraph).

Regarding the elements (a) and (b), both Kingston and Laprade are related to bottle labeling (Fig. 3 and Fig. 2, respectively). Since Laprade anticipates the structure/composition of elements (a) and (b) of the release layer, it would have been obvious to one of ordinary skill in the art to modify Kingston's release layer with the Laprade's release layer, motivated by the desire to obtain an improved release property. As to the thickness of the wax skim coat, since the combined teachings teach generally the same release layer structure and composition as the instantly claimed release layer, a suitable thickness of the wax skim coat is considered to be an obvious optimization to one skilled in the art of heat transfer labels, because discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233. Regarding the element (c), Kingston teaches that the ink design layer (label) is formed by

conventional printing methods with conventional ink (col. 2, lines 59-64) for bottle labeling (Fig. 3). The ink design layer is re-melted and transferred to the receiving surface by rolling pressure from a heated surface at a temperature between about 250°-600° F., for example 350° F. The transfer can also be preheated if desired (col. 1, lines 65-70; col. 3, lines 35-40). About the binder resin composition of being a blend of copolyester and a vinyl chloride/vinyl acetate, since Kingston clearly suggests that any conventional ink with a proper re-melting temperature is suitable, i.e., the ink design layer is not limited to the use of any specific binder compositions, clearly Kingston's teaching encompass the instantly claimed binder materials, because both copolyester and vinyl chloride/vinyl acetate are known (conventional) binder resins for ink design layer, and the idea of combining them flows logically from their having been individually taught in the prior art. For example, as evidenced by Markar, copolyester (Vitel® 2700) is a known binder for an ink design layer (Example 1); as well as vinyl chloride/vinyl acetate, as evidenced by Downs, which discloses that vinyl chloride/vinyl acetate copolymer is a known suitable resin for heat transfer label (col. 5, line 9; col. 7, line 45). About the cross-linking agent, it is noted that McCurry's invention is also directed to a heat-transfer label for bottle labeling (Fig. 1). McCurry teaches that a heat-activated cross-linking agent may be added in one of the color coat (i.e., thermosetting ink design layer) to improve water soak resistance. Preferably, the heat-activated cross-linking agent is selected from the group consisting of urea and melamine formaldehyde, which has an activation temperature of greater than about 250°F, and preferably about 380°F (col. 3, lines 8-18; col. 8, lines 65-67). It would have been obvious to one of ordinary skill in the art to modify Kingston's ink design layer (color coat) with the crosslinking agent of McCurry, motivated by the desire to improve the water soak resistance of the bottle

label, and with a reasonable expectation of success at the time the invention was made.

Moreover, the McCurry's use melamine-formaldehyde Cymel 385, which is inherently a partially methylated melamine-formaldehyde, as evidenced by the product document of Cytec Industries, Inc. About the use of a catalyst, Applicant is reminded that the statement "amine-blocked sulfonic acid is a conventional and well known catalyst for crosslinking (thermosetting) melamine formaldehyde in a controlled temperature range" has been taken as admitted prior art (see Office action mailed 1/27/2005, page 9). Moreover, the statement "including a suitable catalyst in the ink design layer to lower the activation temperature for crosslinking is either implicitly disclosed by Mccurry, or an obvious optimization to one of ordinary skill in the art of crosslinking, motivated by the desire to increase the production efficiency by shorten the processing time" has also been taken as admitted prior art (see Office action mailed 1/27/2005, page 5). Finally, since the combined teachings of prior art renders the general structure/composition obvious, and teach generally the same heat transfer label re-melting/cross-linking conditions, in the absence of unexpected results, a suitable composition ratios among the components, such as amount of each resins, pigments, cross-linking resins, etc., and other desirable end label physical properties, such as tensile properties and catalyzed cross-linking time, etc., are all considered to be obvious optimizations to one of ordinary skill in the art of ink design layer formulation, because discovering the optimum or workable ranges involves only routine skill in the art. It should be noted that, since the combined teachings of prior art render structure/composition of the heat-transfer label obvious, and cross-links at the same temperature range, and the method of use has not been shown on the record to produce a patentably distinct article, the temperature range for the method of use has not been given patentable weight.

Response to Arguments

5. Applicant argues "... the references ... do not teach or suggest the general arrangement of layers in the claimed heat-transfer label, the claimed heat-transfer label **CONSISTING** of ..." (Remarks, page 11, bottom paragraph). However, despite the transition term recites "consisting of", the combined teachings of prior art, i.e., Kingston modified by Laprade's improved release layer, do read on the general arrangement of the layers in the claimed heat-transfer label assembly, as set forth above.

Applicant argues "... the Patent Office is in error in apparently assuming that one of ordinary skill in the art would have motivated to improve the water soak resistance of the other referenced labels ... despite the differences in the base resins ..." (Remarks, page 14"). However, Kingston has suggested that any conventional resin with the proper re-melt temperature is suitable, and selecting suitable crosslinkable conventional resins to be cross-linked to provide water soak resistance to bottle labels have been taught by McCurry. The Examiner asserts that despite Applicant's argument to the contrary, their combination is obvious.

Finally, Applicant argues "McCurry teaches ... the article being labeled is heated to between about 120° F and 220° F ... After label transfer, the temperature of the article is increased to about 380° F to activated the cross-linker. By contrast, the claimed heat-transfer label is applied to an article that has been pre-heated to a temperature of about 250° F-325° F ... Moreover, whereas McCurry teaches heating the label after transfer, the claimed heat-transfer label does not require any post-heating ..." (Remarks, page 15). However, when the prior art

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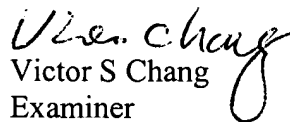
teaches the same temperature ranges for transfer and cross-linking, it is not seen how the process steps of use would have effected the structure and/or the composition of the heat-transfer label.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Victor S. Chang whose telephone number is 571-272-1474. The examiner can normally be reached on 8:30 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel H. Morris can be reached on 571-272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Victor S Chang
Examiner
Art Unit 1771

6/16/2005